

Mineral Industry Surveys

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TIN IN SEPTEMBER 2005

Domestic consumption of primary tin in September was estimated to be about 3% lower than that in August and September 2004, according to the U.S. Geological Survey. Estimated domestic consumption of primary tin in the first 9 months of 2005 was about 1% lower than that in the similar period of 2004. The leading unwrought tin exporters to the United States in the first 8 months of 2005 were, in descending order: Peru, Bolivia, China, and Indonesia.

The Platts Metals Week average composite price for tin in September was \$4.50 per pound, about 4% lower than that in August and 22% lower than that in September 2004. The average composite price for September was the lowest for any month in 2005.

The consensus of London tin analysts was that the world tin market would continue to experience a tin supply deficit throughout 2005, but that the condition would probably not cause tin prices to rise to the high levels of 2004. Twin circumstances of tight supply and active fund buying caused tin to spike to a 15-year-high of \$9,700 per metric ton on the London Metal Exchange (LME) in May 2004, representing a rise of almost 150% in only 2 years. Since then, tin activity and prices have softened. Analysts estimated the 2005 world tin deficit at about 6,000 t, compared with a deficit of 54,000 t in 2004. ITRI Ltd., formerly known as the International Tin Research Institute (United Kingdom), estimated world tin usage at 330,000 t in 2004, with mine production at 276,000 t. This gap led to a major increase in production in 2005, especially in Indonesia, where many small independent miners and smelters emerged. Indonesia's tin exports doubled to 26,000 t in the first quarter of 2005 compared with that of the similar period of 2004 (Metals Place, 2005§¹).

The Steel Recycling Institute (Pittsburgh, PA), a business unit of the American Iron and Steel Institute (Washington, DC), announced that the steel can recycling rate in 2004 was 61%, compared with a 60% rate in 2003. Most steel cans are made from tinplate. Tin, as well as steel, is recovered in can recycling (Steel Recycling Institute, 2005§).

In Indonesia, the country's largest tin producer, PT Timah, reported that refined tin production in the first half of 2005, 19,200 t, was 27% higher than that in the similar period of 2004. The firm attributed the increase in production to the increased purchases of tin ore from small domestic mines. Increased competition for tin feedstock from more than 20 independent tin smelters and lower world tin prices, however, resulted in a squeeze in company operating margins. The margin per metric ton in the second quarter 2005 was only \$369, compared to a peak level of \$2,500 in the similar period in 2004 (CRU Week in the News, 2005a§).

In Brazil, statistics compiled by the tin producers' association Sindicato Nacional da Indústria da Extração Estanho, indicated that tin production declined by 13% in the first 7 months of 2005 compared with that of the similar period of 2004. January-July tin production in 2005 was 5,800 t. Industry officials attributed the decline to the depletion of reserves at the Mamore Mine of Paranapanema Group, ahead of the startup of its new Rocha Sa project. Production by Estanhos de Rondonia SA, the former Cesbra tin operation now owned by steel producer Companhia Siderurgica Nacional, which rose by 16% compared with that of the similar period of 2004, was not enough to offset this decline (CRU Week in the News, 2005c§).

Gippsland Ltd. (Australia) announced that it planned to carry out additional pilot plant test work related to the financing of its Abu Dabbab tantalum-tin project in Egypt. The company hoped to achieve 10% to 20% higher head grades than those used in its November 2004 feasibility study, increasing planned capacity to 720,000 pounds per year (330,000 kilograms per year) of tantalum and 1,700 metric tons per year (t/yr) of tin (CRU Week in the News, 2005b§).

Liuzhou China Tin, which is the second leading tin producer in China, has had difficulty securing sufficient tin concentrate feedstock in recent years and has been subject to several takeover bids. Recently Liuzhou announced two cooperation agreements with major Indonesian companies. An agreement with AG Group covered joint exploration in Indonesia, with the AG Group providing funding for some investment projects in Guangxi, China. Liuzhou reportedly has been conferring with

¹References that include a section mark (§) are found in the Internet References Cited section.

PT Timah (Indonesia) about raw material supplies, and Timah may supply Liuzhou with up to 10,000 t/yr of tin concentrates (CRU Week in the News, 2005d§).

Minsur SA (Peru) announced plans to build a tailings retreatment plant at its large San Rafael tin mine by 2007. The proposed new facility could treat about 5,000 metric tons per day of tin tailings containing about 0.5% tin to produce up to 9,000 t/yr of tin. Minsur currently produces about 40,000 t/yr of tin (CRU Week in the News, 2005d§).

In Australia, Bluestone Tin announced that it planned to close its Renison tin mine on the west coast of the island of Tasmania (Australia), owing to the declining tin price. Company management emphasized that the closure was temporary, pending an increase in the tin price and a revised operational strategy to increase overall mine productivity. Bluestone planned to integrate the Renison Mine with the Mt Bischoff Mine, also in Tasmania, to give the company more flexibility in managing unit production costs. Bluestone's tin project at Collingwood, Queensland, Australia, encompassing a mine and tin concentrator, was expected to proceed, despite lower tin prices. Collingwood could begin production by yearend 2005, with expected output of 3,500 t/yr of tin (Platts Metals Week, 2005).

Reports from Europe indicated an accelerating shift from tinfoil to aluminum in the European beverage can market. The proportion of aluminum to tinfoil in Europe's 88 beverage can lines was 72% to 28%. Much of the accelerated change seemed to occur in response to Germany's planned introduction of a

nationwide return system for one-way beverage containers by May 2006. Canmakers believed that the higher scrap value of aluminum would make it the most viable packaging solution within the new return system (Canmaker, The, 2005).

Update

On October 28, 2005, the Platts Metals Week composite price for tin was \$4.17 per pound.

References Cited

- Canmaker, The, 2005, Rexam accelerates move from steel: The Canmaker, v. 18, October, p. 6.
Platts Metals Week, 2005, Bluestone closes Renison tin mine on lower prices: Platts Metals Week, v. 76, no. 41, October 10, p. 2.

Internet References Cited

- CRU Week in the News, 2005a (September 1), Tin, accessed September 1, 2005, via URL <http://www.crumonitor.com>.
CRU Week in the News, 2005b (September 22), Tin, accessed September 23, 2005, via URL <http://www.crumonitor.com>.
CRU Week in the News, 2005c (September 29), Tin, accessed September 29, 2005, via URL <http://www.crumonitor.com>.
CRU Week in the News, 2005d (October 13), Tin, accessed October 13, 2005, via URL <http://www.crumonitor.com>.
Metals Place, 2005 (August 22), Supply deficits to support tin at current levels, accessed September 27, 2005, via URL <http://www.metalsplace.com>.
Steel Recycling Institute, 2005, Recycle steel cans, accessed October 12, 2005, via URL <http://www.recycle-steel.org>.

TABLE 1
SALIENT TIN STATISTICS¹

(Metric tons, unless otherwise noted)

	2005			
	2004 ^p	August	September	January-September
Production, secondary ^{e, 2}	10,800	900	900	8,100
Consumption:				
Primary	38,500	3,130 ^r	3,040	28,200
Secondary	8,200	770	774	6,900
Imports for consumption, metal	47,600	2,920	NA	NA
Exports, metal	3,650	446	NA	NA
Stocks at end of period	6,140	5,540 ^r	5,370	XX
Prices (average cents per pound): ³				
Metals Week composite ⁴	547.30	469.43	449.50	XX
Metals Week New York dealer	409.38	354.77	334.44	XX
London, standard grade, cash	385.00	326.00	307.00	XX
Kuala Lumpur	385.11	322.25	308.06	XX

^eEstimated. ^pPreliminary. ^rRevised. NA Not available. XX Not applicable.

¹Data are rounded to no more than three significant digits, except prices.

²Includes tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

³Source: Platts Metals Week.

⁴The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges and a risk factor. It is normally substantially higher than other tin prices.

TABLE 2
METALS WEEK COMPOSITE PRICE¹

(Cents per pound)

Period	High	Low	Average
2004:			
September	585.04	566.00	576.55
October	586.56	568.98	578.10
November	584.93	570.24	580.02
December	569.06	505.64	555.57
Year	624.98	424.94	547.30
2005:			
January	521.70	492.15	503.78
February	544.11	511.92	523.08
March	555.16	521.08	543.81
April	534.61	521.86	527.02
May	529.88	521.36	524.53
June	514.23	476.28	497.35
July	483.46	462.98	470.82
August	482.15	458.34	469.43
September	465.96	433.15	449.50

¹The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges and a risk factor. It is normally substantially higher than other tin prices.

Source: Platts Metals Week.

TABLE 3
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES¹

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments ²
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
2004 ^P	W	2,550,000	7,700	3.0	2,190,000
2005:					
January	W	207,000	676	3.3	144,000
February	W	202,000	684	3.4	164,000
March	W	209,000	684	3.3	166,000
April	W	199,000	662	3.3	136,000
May	W	174,000	595	3.4	186,000
June	W	186,000	706	3.8	169,000
July	W	168,000	612	3.8	136,000
August	W	166,000 ^r	606 ^r	3.7	167,000
September	W	169,000	611	3.6	NA

^PPreliminary. ^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits.

²Source: American Iron and Steel Institute monthly publication.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS¹

(Metric tons)

Country or product	2005			
	2004	July	August	January-August
Imports:				
Metal (unwrought tin):				
Bolivia	5,060	601	20	4,280
Brazil	4,330	175	150	1,680
Chile	281	--	--	20
China	5,310	519	338	3,300
Indonesia	4,660	775	600	2,510
Japan	540	--	--	--
Malaysia	6,600	200	30	1,100
Peru	19,600	1,310	1,770	13,300
Switzerland	178	--	--	1
Thailand	500	--	10	45
United Kingdom	97	9	--	27
Other	472	6	2	159
Total	47,600	3,590	2,920	26,400
Other (gross weight):				
Alloys	5,180	419	263	5,610
Bars and rods	625	87	109	655
Foil, tubes, pipes	6	--	--	(2)
Plates, sheets, strip	509	14	35	227
Waste and scrap	1,950	204	336	2,060
Miscellaneous	3,330	241	423	2,070
Total	11,600	965	1,170	10,600
Exports (metal)	3,650	392	446	2,740

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT¹

(Metric tons of contained tin)

Product	2004 ^P	2005						
		August			September			January- September
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) ²	2,800	104 ^r	--	104 ^r	100	--	100	935
Babbitt	264	18 ^r	W	18 ^r	17	W	17	221
Bar tin and anodes	182	23	W	23	23	W	23	205
Bronze and brass	2,490	175	136	311	177	140	317	2,750
Chemicals	8,490	719	W	719	719	W	719	6,470
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	12,500	741	325	1,070	650	325	975	9,240
Tinning	451	61	--	61	63	--	63	551
Tinplate ³	7,700	606 ^r	--	606 ^r	611	--	611	5,840
Tin powder	W	W	--	W	W	--	W	W
White metal ⁴	W	W	--	W	W	--	W	W
Other	1,000	82 ^r	9	91 ^r	81	9	90	810
Total reported	35,900	2,530 ^r	470	3,000 ^r	2,440	474	2,920	27,000
Estimated undistributed consumption ⁵	10,800	600	300	900	600	300	900	8,100
Grand total	46,700	3,130 ^r	770	3,900 ^r	3,040	774	3,820	35,100

^PPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes terre metal.

³Includes secondary pig tin and tin components of tinplating chemical solutions.

⁴Includes pewter, britannia metal, and jewelers' metal.

⁵Estimated consumption of plants reporting on an annual basis.